AMENDMENTS TO THE CLAIMS: This listing of claims replaces all prior versions and listings of claims in the instant patent application.

Listing of claims:

1. (currently amended) A method of detecting Graves' disease in a patient comprising

(a) obtaining ~~a biological~~ an orbital or skin sample comprising fibroblasts from the patient, and

(b) detecting in said ~~biological~~ an orbital or skin sample the activation of fibroblasts by binding of disease specific IgG to the IGF-1 receptor (IGF-1R) relative to a control wherein ~~presence~~ an increased presence of IgG-activated fibroblasts compared to the control indicates Graves' disease, and wherein fibroblast activation is determined by measuring the level of a chemical marker expressed by said IgG-activated fibroblasts or by measuring T cell migration towards said fibroblasts in said orbital or skin sample.

2. (cancelled)

3. (currently amended) The method of claim 1 ~~wherein the detecting is accomplished by measuring the level of a chemical marker expressed by said IgG-activated fibroblasts in said biological sample~~, wherein an elevated level of the marker compared to the control indicates presence of said IgG-activated fibroblasts.

4. (original) The method of claim 3 wherein the marker is RANTES.

5. (previously presented) The method of claim 3 wherein the marker is IL-16.

6. (currently amended) The method of claim 2 wherein the detecting is accomplished by exposing T-cells to said ~~biological~~ an orbital or skin sample comprising said fibroblasts and measuring T-cell migration toward said fibroblasts, wherein an increase in the migration of said fibroblasts relative to the control indicates presence of said IgG-activated fibroblasts.

7. (currently amended) The method of claim 1 wherein the patient is human.

8. (cancelled)

9. (currently amended) A method of detecting the presence of antibody-activated

fibroblasts, said method comprising

(a) obtaining a ~~biological~~ an orbital or skin sample comprising fibroblasts from the patient;

(b) contacting said sample with an antibody specific for IL-16

(c) detecting the level of IL-16 released by said fibroblasts relative to a control, wherein an elevated level of IL-16 detects the presence of antibody-activated fibroblasts.

10. (currently amended) A method of detecting the presence of antibody-activated fibroblasts, said method comprising

(a) obtaining a ~~biological~~ an orbital or skin sample comprising fibroblasts from the patient;

(b) contacting said sample with an antibody specific for RANTES;

(c) detecting the level of RANTES released by said fibroblasts relative to a control, wherein an elevated level of ~~RANES~~ RANTES detects the presence of antibody-activated fibroblasts.

11. (currently amended) A method of detecting the presence of antibody-activated fibroblasts, said method comprising

(a) obtaining a ~~biological~~ an orbital or skin sample comprising fibroblasts from the patient;

(b) contacting said sample with antibodies specific for IL-16 and RANTES;

(c) detecting the levels of IL-16 and RANTES released by said fibroblasts relative to a control, wherein an elevated level of both IL-16 and RANTES detects the presence of antibody-activated fibroblasts.